

In the Claims

Please amend the claims, without prejudice, to read as follows:

1 (currently amended). Process for the manufacture of a digital color picture from an original, comprising the steps of:

 photoelectrically scanning the original by way of a color-enabled scanning device for obtaining scanning data;

 forming the digital color picture from the scanning data;

 transforming the digital color picture by way of a color transformation for achieving a colorimetric correspondence between the digital color picture and a reference color test picture produced by way of an analog production line, wherein said color transformation is independent of parameters associated with said analog production line;

and

 at least one of storing the transformed digital color picture in a preselected format and recording the digital color picture on a data carrier medium.

2 (previously presented). Process according to claim 1, wherein the step of transforming is carried out according to color management principles by using a specific profile which describes a combination of type-specific colorimetric properties of the original and a specific transfer function of the scanning device.

3 (previously presented). Process according to claim 2, comprising the step of:

providing a profile for each of a number of combinations of different original types and different scanning devices, wherein the step of transforming is carried out with a profile that belongs to an actually used scanning device and the actual original type used.

4 (previously presented). Process according to claim 3, wherein the step of providing the profile comprises the steps of:

respectively assigning the different original types according to similarities in colorimetric properties to one of a number of original categories;

setting one original type for each original category as master original; and

providing a separate profile for each combination of master original and different scanning device, wherein the step of transforming is carried out with the profile that belongs to the actually used scanning device and to a master original which belongs to an original category to which the actual photographic original belongs.

5 (previously presented). Process according to claim 4, wherein different assignments of original types to the original categories are formed for different quality requirements and used for a selection of a respective profile.

6 (previously presented). Process according to claim 3, including the steps of:

providing test originals of individual original types for an assignment of the different original types to original categories, the test originals carrying a test image having several color measurement fields measuring the color values of the color measurement

fields, comparing the color measurement data of the test originals and assigning the original types based on the comparison of the color measurement values.

7 (previously presented). Process according to claim 1, comprising the further of:

 selecting one original type as a superior reference original type;
 making a physical analog color test card as reference color test image from an original of the reference original type, the test card including a color measurement card;
and
 using this reference color test image for creating the profile.

8 (previously presented). Process according to claim 2, comprising the steps of:

 carrying out a quality control from time to time using the test originals by colorimetrically comparing digital test color pictures produced from the test originals with corresponding reference test color pictures;
 determining a quality measurement from the color differences; and
 newly creating profiles when the quality measurement exceeds a preselected threshold value.

9 (previously presented). Process according to claim 2, comprising the steps of:

 treating the original, which is an exposed photographic original material, by wet chemistry prior to the scanning; and
 incorporating the wet chemistry treatment of the original material into a formation of the profile.

10 (currently amended). Apparatus for the manufacture of a digital color picture, comprising:

 a color-enabled scanning device for photoelectrically scanning an original to obtain scanning data; and

 a computer for forming the digital color picture from the scanning data obtained in a preselected data format, the computer cooperating with the scanning device and at least one of storing the digital color picture and recording it on a data carrier medium, and the computer subjecting the digital color picture prior to the at least one of storage and recording to a color transformation for transforming the color space defined by a combination of type specific colorimetric properties of the original and a specific transfer function of the scanning device used, so that a colorimetric correspondence between the digital color picture and a reference color test picture produced by way of an analog production line is achieved, wherein said color transformation is independent of parameters associated with said analog production line.

11 (previously presented). Apparatus according to claim 10, wherein the computer carries out the color transformation according to color management principles by using a specific profile which describes the combination of the type specific colorimetric properties of the original and the specific transfer function of the scanning device used.

12 (previously presented). Apparatus according to claim 11, wherein the computer comprises:

means for respectively storing one profile for one of a number of combinations of different types of originals with different scanning devices; and

means for recognizing the actually used scanning device and the type of the actual original on the basis of information in relation thereto, wherein the computer is constructed for carrying out the transformation with a profile that belongs to an actually used scanning device and the actual original type.

13 (previously presented). Apparatus according to claim 12, wherein the computer comprises:

means for respectively assigning each of a number of different original types according to similarities of spectral properties to one of a number of original categories and for selecting one type of original category for each original as master original; and

means for storing a profile for each combination of master original and one of a number of different scanning devices, wherein the computer carries out the color transformation with the profile that actually belongs to the actually used scanning device and to a master original of an original category to which the actual photographic original belongs.

14 (previously presented). Apparatus according to claim 11, wherein the computer comprises:

a profile generation means for automatically creating a profile on the basis of image data of a digital test color picture and a reference color test picture.

15 (previously presented). Apparatus according to claim 10, comprising:

quality control means for controlling the quality of the digital color picture.

16 (previously presented). Apparatus according to claim 15, wherein the quality control means forms a quality measure by comparing digital test color pictures with corresponding digital reference test color pictures and causes a new calculation of the profile when the quality measure exceeds a preselected threshold value.

17 (previously presented). A color measurement strip, comprising:

a color test image region with a relatively small number of color measurement fields;

a color test card region with a relatively large number of color measurement fields;
and

a visual test image region with at least one picture motif suitable for a visual color evaluation, wherein the color measurement strip is used in a process comprising the steps of:

photoelectrically scanning an original by way of a color-enabled scanning device for obtaining scanning data;

forming a digital color picture from the scanning data;

transforming the digital color picture by way of a color transformation for achieving a colorimetric correspondence between the digital color picture and a reference color test picture; and

at least one of storing the transformed digital color picture in a preselected format and recording the digital color picture on a data carrier medium.

18 (previously presented). Color measurement strip according to claim 17, wherein the color test image region includes twelve color measurement fields in the additive and subtractive base colors, white, black and four different shades of gray respectively.